

## Working Paper CEsA CSG 166/2018

# PORTUGAL AND THE EURO<sup>1</sup>

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### Abstract

This paper is divided in two parts. In the first part, we present some data of the Portuguese economy aiming to capture some of its main long trends and the way it reacts to the introduction of the single currency in Europe. Since Portugal follow a similar path with Spain in what concerns the European economic integration process, we developed a comparative analysis between the two Iberian countries trying to capture some dynamics that can aid to understand the different ways how the two economies reacted to the introduction of the euro and, in this phase of the economic integration in Europe, how they suffered the 2007-2008 international crisis and reacted to its effects. To evaluate and compare the two countries paths we use some fundamental macroeconomic indicators as, output and employment, investment, external accounts, budget balances and government debts. The comparison with Europe's average economic performance is also present, trying to understand which country follow a more “European path”.

In the second part, we concentrate on the euro system crisis trying to give some contributes to the ongoing discussion about the role and effectiveness of the euro as an internal adjustment variable. Not only in terms of the pre-creation of the better conditions for the European economy to respond to cyclical and structural crisis processes, but also in terms of dealing with the developments of the real crisis process that explode in Europe in 2007-2008 and gave origin to what was called the “sovereign debt crisis” that deeply harmed the most weak economies, like Portugal but also like Spain. In particular, we discuss the issue of the effectiveness versus the exhaustion of monetary policy followed by the ECB in response to the Eurozone effects of the global economic and financial crisis.

**Keywords** Portugal, Spain, Euro, Financial Crisis, Unconventional Monetary Policy

**JEL** E50; E52

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## WORKING PAPER

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## INTRODUCTION

This paper has a double aim. First, we want to discuss some aspects of the long-term development of the Portuguese economy in order to better understand the way it reacted to the main consequences of the international financial crisis and the subsequent impacts at the Eurozone level. Second, we want to discuss the role of the monetary policy that has been adopted by the ECB, in order to deal with the asymmetries that have been produced in the Eurozone, particularly in the context of the so-called “sovereign debt crisis”.

Having in mind these objectives, we divided the paper in two parts.

In the first part, we present some data of the Portuguese economy aiming to capture some of its main long trends and the way it reacts to the introduction of the single currency in Europe. Since Portugal follow a similar path with Spain in what concerns the European economic integration process, we developed a comparative analysis between the two Iberian countries trying to capture some dynamics that can aid to understand the different ways how the two economies reacted to the introduction of the euro and, in this phase of the economic integration in Europe, how they suffered and reacted to the 2007-2008 international crisis effects. To evaluate and compare the two countries paths we use some fundamental macroeconomic indicators as, output and employment, investment, external accounts, budget balances and government debts. The comparison with Europe's average economic performance is also present, trying to understand which country follow a more “European path”.

In the second part, we concentrate on the particular euro system crisis trying to give some contributes to the ongoing discussion about the role and effectiveness of the euro as an internal adjustment variable. Not only in terms of the pre-creation of the better conditions for the European economy to respond to cyclical and structural crisis processes, but also in terms of dealing with the developments of the real crisis process that exploded in Europe in 2007-2008

and gave origin to what was called the “sovereign debt crisis” that deeply harmed the most weak economies, like Portugal but also like Spain. In particular, we discuss the issue of the effectiveness versus the exhaustion of the so-called unconventional monetary policy followed by the ECB in response to the Eurozone effects of the global economic and financial crisis.

## 1. PORTUGAL AND SPAIN: SOME LONG-TERM TENDENCIES AND THE EURO

In the aftermath of the democratization processes initiated, respectively, in 1974 and 1975, Portugal and Spain followed relatively similar paths with respect on the European economic integration options.

After the constitution of democratic constitutional governments, both countries started adhesion processes to the then called European Economic Communities which led to the simultaneous entry on the 1<sup>st</sup> January 1986. Since that date, they have always been together in the fundamental steps towards the economic and monetary union, having shared the same vision about the importance of European integration for economic and social development of both countries, as well as the same desire to be in the forefront of the integration developments that have taken place and culminated in the creation of the euro.

Despite this identity of vision and European path, Portugal and Spain did not experience the same economic performance nor obtained the same results. Without any pretensions to completeness, we present below some elements that seek to translate the course of the two countries within an extended period, which roughly covers four distinct periods, marked by key events that have changed their economies functioning: i) a period before the crisis of the beginning of the 1970s, known as the oil crisis. A crisis which would mark the resurgence of

liberal economic conceptions, in view of the exhaustion of Keynesian ideas and practices prevailing until then, and would have direct consequences in the very processes of democratization that began shortly thereafter; ii) a period that covered the preparation for adhesion to the Communities, which would extend from democratization to the end of 1985; iii) a period following the adhesion to the Communities until the introduction of the euro; iv) and, finally, the Euro period that also includes the effects of the great economic and financial crisis triggered by the particular crisis of the American subprime mortgage market.

Of course, these are arbitrary milestones, chosen according to the aims of the analysis. But they reflect the concern to identify decisive milestones of the structural changings of the functioning conditions of the two countries' economies and, at the same time, extended enough to capture these changings.

### 1.1. OUTPUT DYNAMICS

When looking at output dynamics, from a long-term perspective, there is a general trend towards deceleration of economic growth which is accentuated in successive moments of crisis.

The international economic crisis of 1974-75 interrupts a long period of economic growth of the world economy and of the European economy, in particular. A period which began after the Second World War and that is generally associated with the hegemony of a Keynesian paradigm of economic interventionism.

The need to rebuild the European economies created the conditions for a generalized acceptance of the idea of a strong state economic intervention, aimed at restoring the civil economy, restoring the levels of output and at absorbing the demobilized labour force. But the new political conditions in Europe, resulting from the defeat of Germany and strengthening of

the Soviet bloc, also favoured the development of the new European projects of integration, the concern for growth and economic and social cohesion reducing, at the same time, the field of attraction of the more liberal ideas of the markets efficiency on the resources allocation, which, in fact, were in sharp decline since the 1930's crisis.

The stability of growth in the almost three decades following the end of World War II, with average rates around 5% per year, the reduction of asymmetries within and between countries, the non-occurrence of serious crises such as those that occurred in the pre-war period, cemented the conviction that a new era of economic and social progress had begun, soon baptized by some authors as "post-cyclical capitalism", wanting to reflect the idea that economic policy, inspired by Keynes' theory, had definitively overcome the "invisible hand" of neoclassical theorists.

In this sense, the crisis of the 1970s, due to its breadth and depth, was a surprise that shook strongly all the established convictions, the beginning of a new era, characterized by the return of the belief in the markets efficiency and by the excommunication of interventionist ideas, that led to a new theoretical and policy reference framework that had an expression in the so-called "Washington Consensus", synthetized by John Williamson at the end of the 1980's, and which was still at the basis of the "Structural macroeconomic adjustment programs" prescribed to European countries with economic difficulties, such as Greece, Ireland and Portugal in the aftermath of the so-called sovereign debt crises.

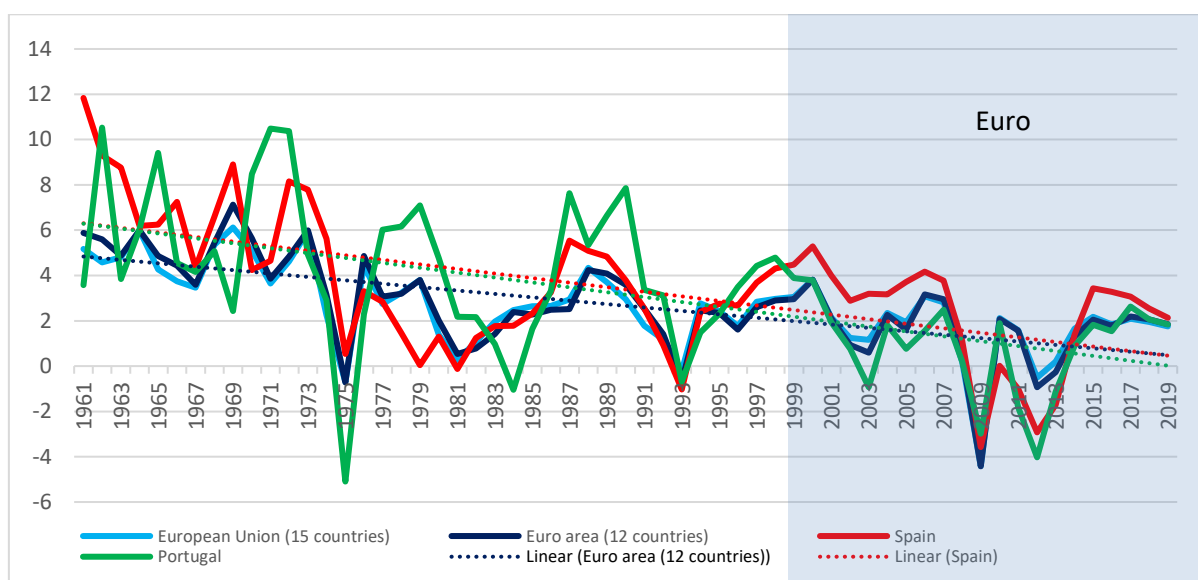
For several reasons that it is not possible to develop within the scope of this intervention, the crisis of the 1970s represents an effective turning point in the functioning of the world economy and of the different countries' economies which reflected, among other aspects, in the re-emergence of the economic cycle and in the general reduction of growth dynamics. The crisis of the 1970s was followed by the crisis of the 1980s, the crisis of the 1990s,



the crisis of the beginning of the millennium and the crisis starting at the end of 2008, whose effects are still running.

Charts 1 and 2, below, show well what we said above, in what regards the economies of Spain and Portugal and also in what regards European Union and Euro zone. A declining trend, that accentuates after each crisis process, is well visible in each of the economies and in Europe as a whole.

Chart 1: Real GDP: 1961 – 2019, % annual changes (2018 and 2019: Forecasts)



Source: AMECO, Nov. 2017

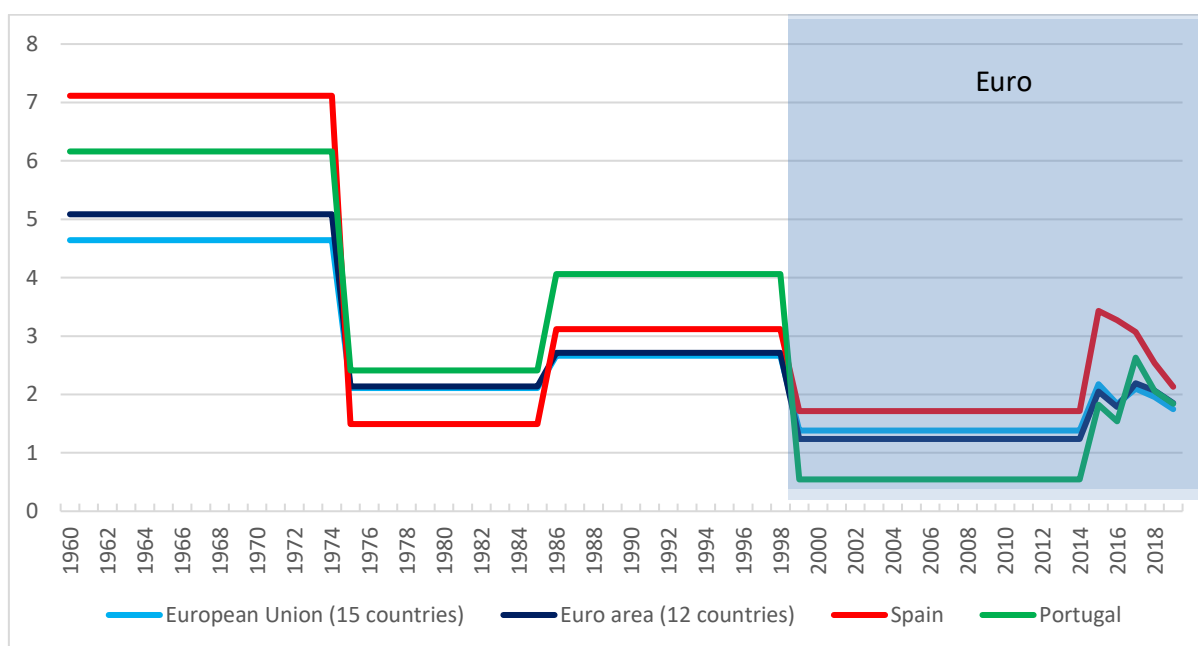
The trend is, however, more pronounced in the Portuguese economy which evolves from growth rates of more than 6% per year in the period prior to 1974, to a near stagnation after the entrance in the Eurozone, clearly beginning a diverging process from Europe.

As far as Spain is concerned, although we can detect a declining trend, which accentuates in the period that goes from the establishment of democracy to the adhesion to the Communities (1975-1985) reflecting, undoubtedly, the process of internal political adjustment,

it is not so pronounced as the Portuguese trend. We can even see an inversion of relative positions after participation in the euro zone.

Contrary to what happened with Portugal, which was clearly confronted with an adverse shock that had been boosted by the 2008 crisis, Spain has an average post-euro growth rate, in the period between 1999 and 2014, of around 1.7% per year, higher than the European average, that is around 1.4% - 1.2% (EU 15 and EA 12) and clearly higher than the Portuguese average growth rate which stays by 0.5%. Although we can see a general negative effect of the creation of the euro over the economic dynamics, which reflects substantially its ineffectiveness as an instrument of macroeconomic adjustment, Spain seems to have weathered better, surpassing the European growth average rate, unlike Portugal which reveals evidence of a deep structural crisis, positioning itself in the tail of the economic growth in Europe. A situation that is particularly highlighted in Chart 2.

**Chart 2: Real GDP: Annual average rates, Periods: 1960 - 1974; 1975 - 1985; 1986 - 1998; 1999 - 2014; 2015, 2017, 2018 and 2019, 2018 and 2019: Forecasts**

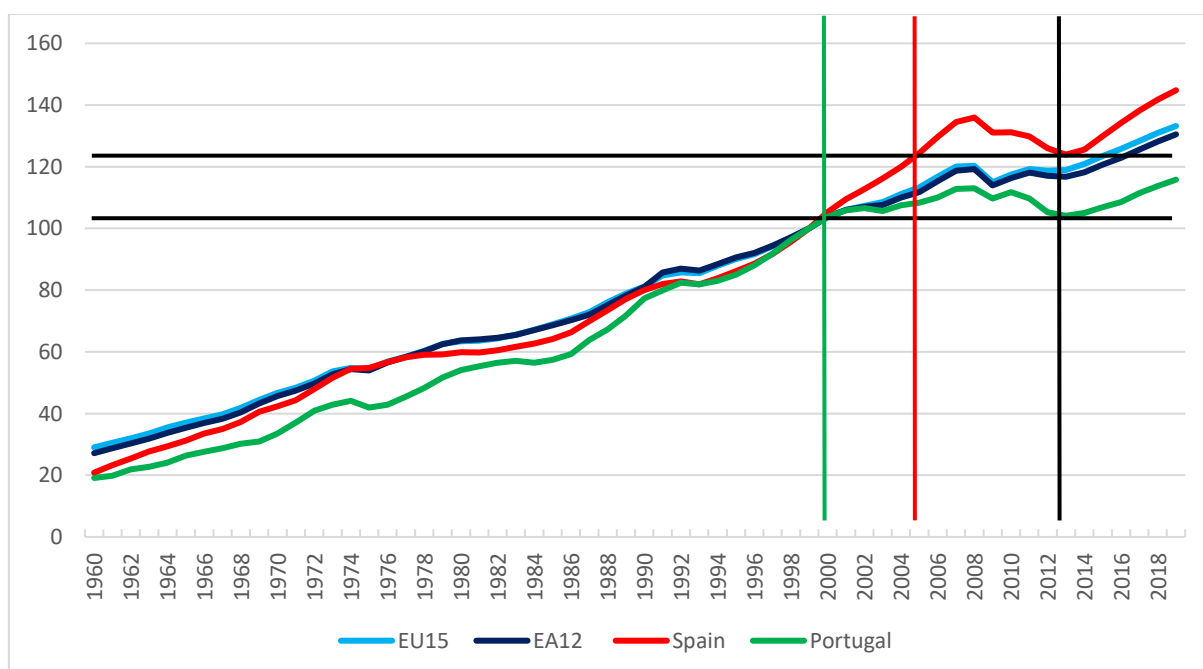


Source: AMECO, Nov. 2017

To end the analysis of the output dynamics we highlight the effects of the adjustment program that was applied in Portugal between May 2011 and May 2014. If we look behind to find a year with an output level identical to the minimum reached in 2013 we need go back until 2000, practically the beginning of the euro. If we compare with the Spanish case the fall in output is much less significant with a decline to the level of 2005 (see Chart 3, below).

Of course, these falls provoked also deep structural changes in the economies of both countries with consequences that will persist for many years ahead. But it is not the aim of this paper to deal with this kind of problems. In any case, we will say that these effects can have direct consequences in terms of the conditions for growth sustainability, particularly in Portugal, a country with a not so strong economic base.

Chart 3: Real GDP: 1960 – 2019, Annual Index - 1999 = 100, (2018 and 2019: Forecasts)



Source: AMECO, Nov. 2017

## 1.2. UNEMPLOYMENT DYNAMICS

Concerning the evolution of employment, the situations are also different between Portugal and Spain reflecting very different starting structural conditions and economic dynamics and, also, different economic policies priorities. And, above all, different adjustment dynamics to external shocks induced by the adhesion to the European economic integration process and by the economic crisis processes that have been produced in the meantime.

It is interesting to note the relatively low unemployment rates in the period ending in 1974 (less than 3%). Portugal verifies in this period a minimum rate of 1.7% in 1974 reflecting not only the post-war economic dynamism and the economic policy priorities of the time, centred on the goal of full employment, but also the emigration phenomenon to Europe and the military mobilization to the colonial war. And is interesting to note also the explosion of unemployment in the aftermath of the crisis of the 1970s, accentuated by the political upheavals that took place in both countries after 1974 and 1975 and which, in the case of Spain, reaches historical proportions over a period spanning more than 20 years, with unemployment rates systematically above 15%, reaching a peak in 1994 with unemployment rate at 22% of active population and declining from that point on, until reaching a minimum in the year immediately prior to the 2007 crisis with 8.2% of the labour force.

Portugal experiences a different situation from Spain with unemployment contained at substantial low levels, despite the military demobilization following the end of the colonial war, the reduction of the emigration flows and the arrival of hundreds of thousands of returned people from the former colonies of Africa. The peak of unemployment is reached in 1985, the year before the adhesion to the European Communities, with an employment rate of 9,8% of active population, while reflecting the adjustment program agreed with the IMF for the period 1983 – 1985 (see Chart 4 bellow).

The participation in the Communities and the subsequent inflow of funding, together with a high international conjuncture, due to the dollar declining and the fall of the oil prices, and a succession of good agricultural years, created the conditions for a good economic performance of Portugal that impacted positively on the return to relatively high levels of growth. In the period that goes from 1986 to the creation of the euro the Portuguese economy compares rather well with their partners by registering an annual growth rate of more than 4% versus 2,6% and 2,7% for UE 15 and EA 12, respectively, overtaking Spain Which stands at 3,1%. This period was a golden age of the Portuguese economy, nourishing all the easing illusions that would later be paid with high interests. Unemployment reduces substantially reaching a minimum level of 5% in the years of 1991 and 1992.

On the other hand, Spain, despite some inflection, continues to face high rates of unemployment, reaching as already mentioned, an historical peak in 1994, with 22% of unemployed people.

Unlike Portugal, Spain has experienced a stronger structural adjustment process, of economic renewal and modernization, while Portugal has witnessed the beginning of a resources transferring process to the non-tradable goods sector, fuelled by the injection of European funds and easy access to credit, which artificially secured unemployment, but inhibited the in-depth restructuring of the productive sector.

Since the second half of the 1990s, the process of structural adjustment in Spain seems to have ended, with a decline in unemployment, a trend that continues after the creation of the euro, despite the cyclical increase resulting from the beginning of the millennium crisis, to reach a record low of 8,2% in the year immediately prior to the crisis in 2007. From here, an exponential increase occurs, with unemployment rate reaching in 2013 the impressive peak of 26,1% of the active population.

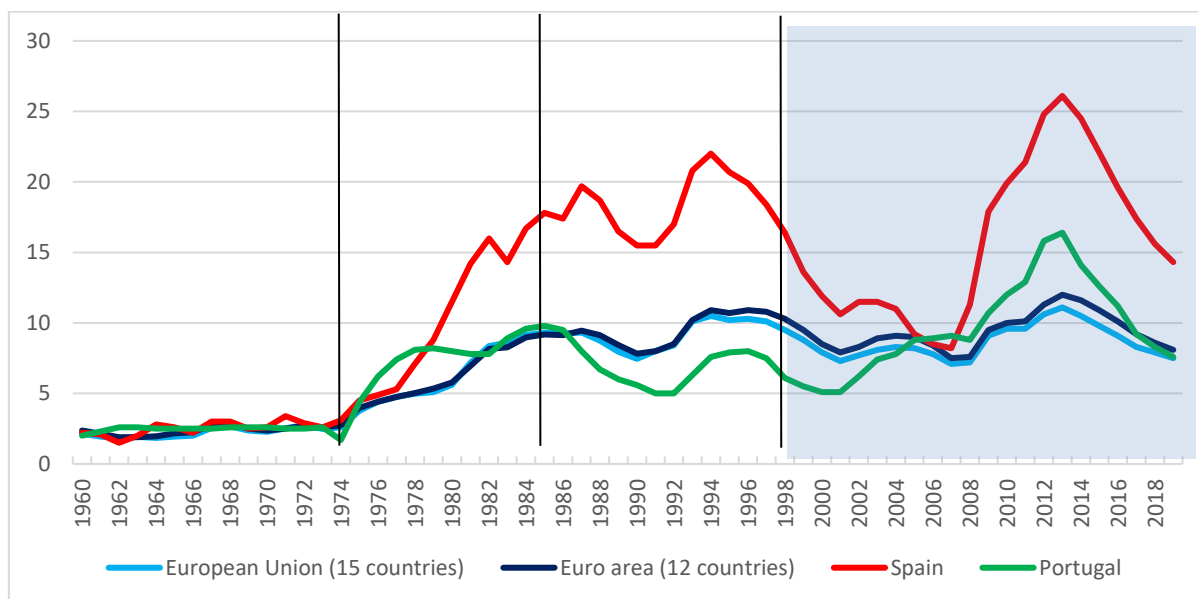
As far as Portugal is concerned, the evolution is completely different. In throughout the period from adhesion to the creation of the euro, Portugal has rates of unemployment substantially below the European average, including during the years of recession in the first half of the 1990s. This situation is completely changed from the third year of the creation of the euro in 2002, when an ascending trajectory of unemployment begins reaching a historic peak in 2013 with a 16,4% rate of unemployment. A Chart that would substantially be higher did not have the emigration to Europe and to the ex-colonies working as exhaust valve returning to levels close to the 1960s.

Also, with regard to unemployment, is true what we said about the difference in economic dynamism between the two countries after the creation of the euro.

The Spanish better economic performance, which seems to have positively reacted to the creation of the new European currency, contrary to what seems to have happened with Portugal, is reflected in a better behaviour of unemployment which reduces substantially until the outbreak of the 2007's international crisis.

As might be expected, with the crisis unemployment explodes in both countries. But, while in Spain there is a reversal of trend in Portugal we see a marked increase of the trend that came from behind. In any case it is important to note that Portugal does not reach the levels of unemployment verified in Spain, showing a different role of this economic variable as adjustment instrument, both in cyclical and structural terms.

Chart 4: Unemployment rates: 1960 – 2019 (2018 and 2019: Forecasts)



Source: AMECO, Nov. 2017

### 1.3. INVESTMENT PERFORMANCE

Charts 5, 6, 7 and 8 seek to capture the evolution of investment, through the behaviour of Gross Fixed Capital Formation, the total economy and government in particular. In this case too, there are substantial differences between the economic dynamics of the two countries.

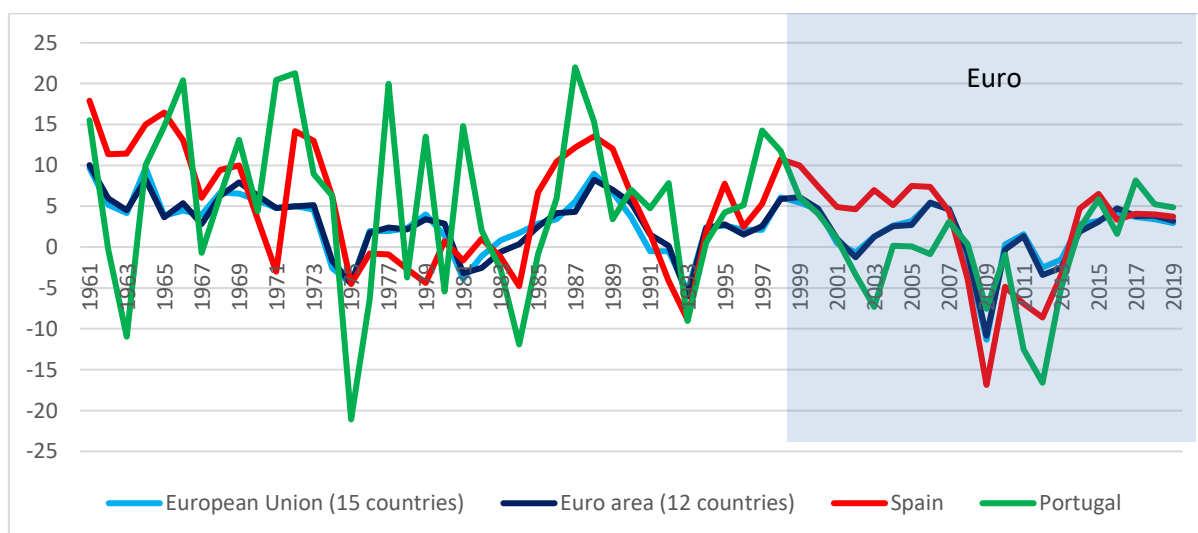
The first finding that results from the observation of the behaviour of this economic variable in the two countries is the greater volatility in the Portuguese economy (Chart 5 bellow). Spain follows a more regular pattern, closer to the European average, whereas in Portugal there is a more erratic behaviour, with large fluctuations, showing certainly, a lower consistency of the Portuguese economy and a greater vulnerability to the evolution of demand or dependence on economic policy.

Nonetheless, there is some similarity in terms of general trends in both countries and the European average. But once again, the creation of the euro has changed everything.

In both countries, in the period up to 1974, there is a trend towards higher rates of investment, compared to the European average, reflecting a catching up process. In the following period (1975 – 1985) we can see a decline, more pronounced in Spain, once again to recover from 1985 onwards and during the post-adhesion period, with the exception of the crisis of the early 1990s where, as one would expect, there is a further decline.

Once again, after the introduction of the euro, the paths of the two countries have diverged significantly. Spain maintains relatively high rates of investment progress, above the European average, only interrupted by the 2008 crisis, while Portugal faces a period of loss of investment dynamism, with systematically negative growth rates, reflecting a structural disinvestment trend that sporadic recoveries in some years are not enough to counteract.

Chart 5: Gross fixed capital formation at 2010 prices: 1961 – 2019, Annual changes (%) (2018 and 2019: Forecasts)

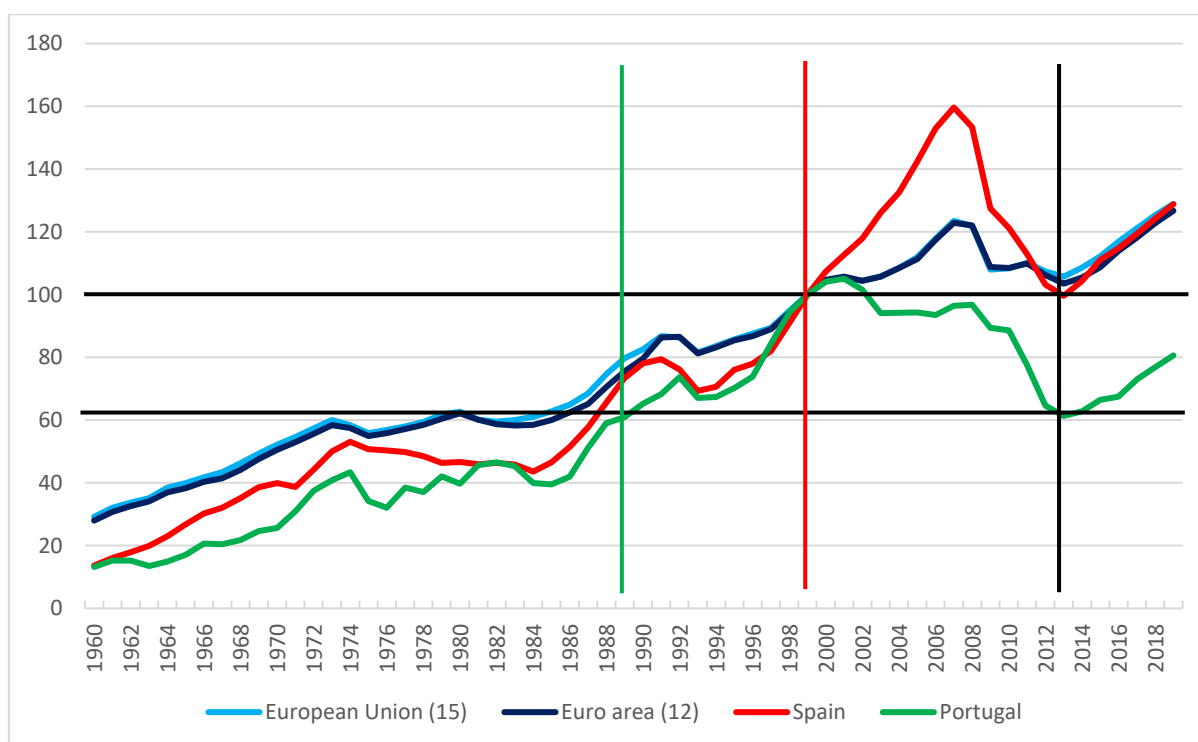


Source: AMECO, Nov. 2017



Chart 6 below, is particularly illuminating in the investment performance of both countries, showing the Spain's relative good investment performance that continues after the euro until the arriving of the 2007 crisis stopped everything. In the case of Portugal, we can see clearly the declining trend of investment that develops from 2001 and which is accentuated by the crisis. If we look at the year 2013, we see that Portugal declined to investment levels similar to those of 1989, while Spain has fallen much less to 1999-2000 levels, in line with previous trends.

**Chart 6: Gross fixed capital formation (Volume): 1960 – 2019, Annual Index - 1999 = 100 (2018 and 2019: Forecasts)**



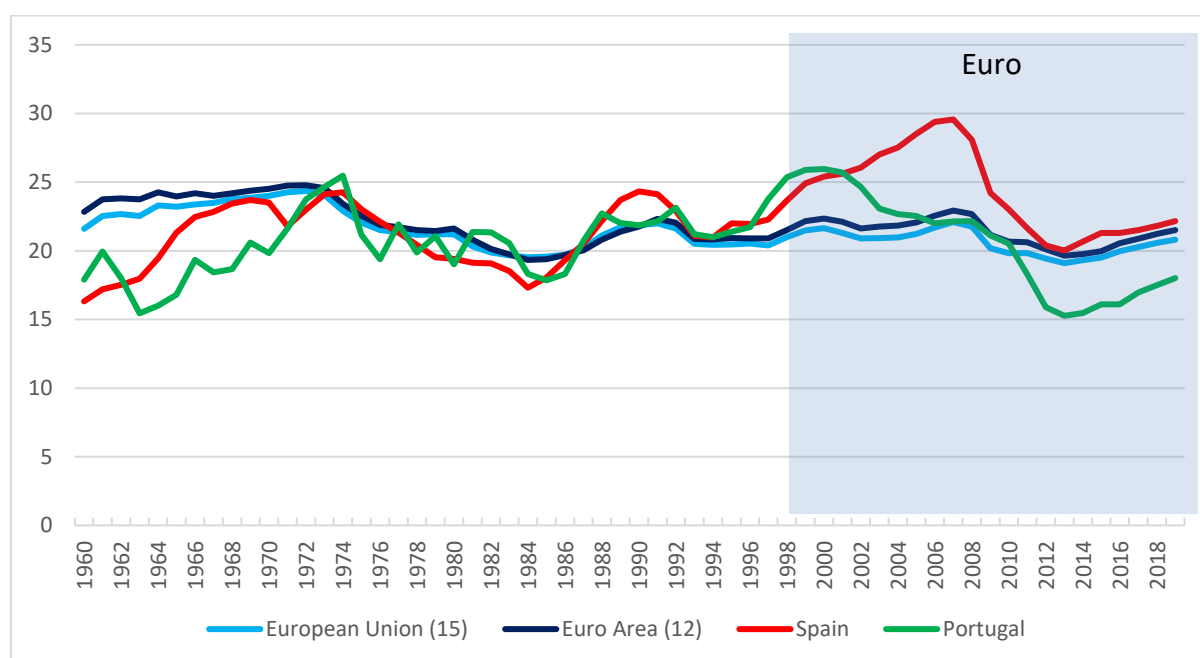
Source: AMECO, Nov. 2017

Chart 7, which shows the weight of GFCF on GDP, also illustrates the dynamics of investment in both countries. All of what was said above said has a concentrated expression here, with the catching up phenomenon being clearly evident in both countries up to 1974,

when they reach a ratio GFCF on GDP of around 25%, slightly higher than the European average, to follow up the general decline during the following 10 years, between 1975 and 1985.

With the adhesion to the Communities, begins a new upward trend which, in the case of Spain, accentuates in the post-euro period, until reaching a maximum of 29.6% of GDP in 2007. Portugal already sees the peak of GFCF in 2000, with a GDP weight of approximately 26%, declining from there to a low of 15% in 2013, that compares with around 20% in Spain and 19.3% and 19.6% in the EU 15 and EA 12, respectively.

**Chart 7: Gross fixed capital formation /GDP (%): total economy (2010 prices), 1960 – 2019 (2018 and 2019: Forecasts)**



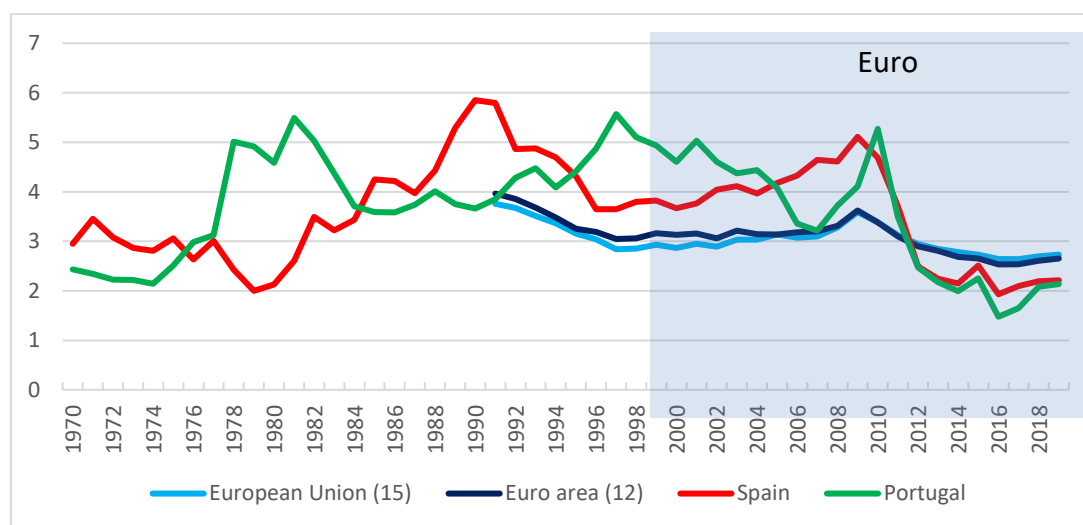
Source: AMECO, Nov. 2017

### 1.3.1. PUBLIC INVESTMENT

Another interesting indicator concerns the behaviour of public investment (Graph 7). While Spain has shown a steady progression of GFCF since the second half of the 1990s, evolving

from levels of 3.6% of GDP to levels above 5% in 2009, including levels around 4.5 – 4.6% in 2007 and 2008, Portugal sees public investment declining since practically the same moment, from levels of 5.5% to 3.2% of GDP in 2007, rising again in 2008, 2009 and 2010, when it reached a new peak of 5.2% of GDP. In both countries, there is a visible use of public investment as a tool to respond to the crisis, reflecting the guidelines and immediate concerns of national and European government officials. But the inflection in these guidelines at the levels of European policymakers, which redirects the focus of attention to deficits and public debts, provokes a drastic reversal of public investment in the two countries to levels around 2% of GDP, becoming a procyclical variable. Portugal still prolongs the effort in 2010 but public investment falls dramatically in the following years, until reaching a minimum in 2014 with 2% of GDP. Spain begins the inversion a year earlier in 2009, falling to the same levels in 2014. But while in Portugal there is a recover of public investment in the years of 2009 and 2010, by the government's action at the time, in a attempt to answer the most negative effects of the crisis, in Spain the same option is verified, but in the context of a reinforcement of the trend that was running before. Comparing with the European average it is very clear the huge recession effect produced in both countries, especially if we look to the pre-crisis levels of public investment.

**Chart 8: Gross fixed capital formation/GDP (%): general government (current prices), 1960 – 2019 (2018 and 2019: Forecasts)**



Source: AMECO, Nov. 2017

## 1.4. BUDGET BALANCES

In what concerns public finances, the performances of the two countries are very different, in result of the distinctive economic dynamics discussed above (See Chart 9 bellow).

Spain has shown a remarkable capacity for rebalancing public accounts, which has manifested since the beginning of the second half of the 1990s, being able to adjust deficits exceeding 7% of GDP into surpluses, starting in 2004 and reaching a value of 2% in the years immediately prior to the crisis, 2006 and 2007.

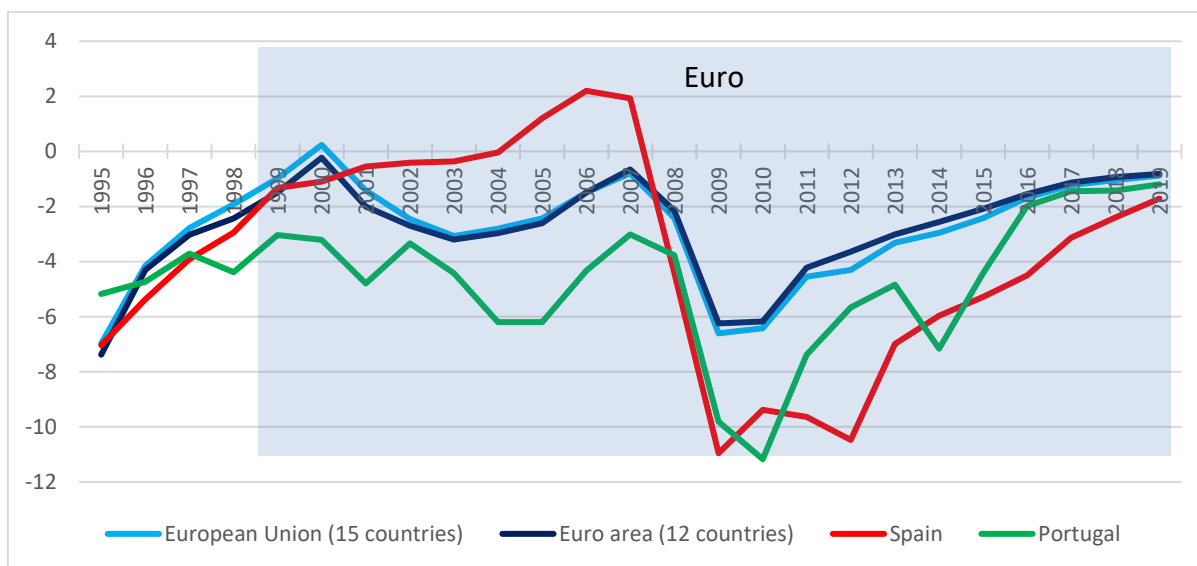
As far as Portugal is concerned, there is an adjustment in the period leading up to the euro, reflecting the concern for compliance with the Maastricht criteria. This is followed by swings that evolve towards a further deterioration in 2004 and 2005 to more than 6% of GDP, pushed by the crisis situation at the beginning of the new millennium. The new government elected in 2005 is faced with an excessive deficit procedure by the European Commission, and

has succeeded in correcting it, reaching the targets one year earlier than agreed in 2008 (values in real time).

In both cases, the crisis has led to an understandable deterioration in budget balances to levels around 10 - 11% of GDP in 2009 and 2010, plunging the two countries into deep fiscal crises, giving strength to the sovereign debt crises thesis in peripheral countries.

As is well known, Portugal applies an economic and financial adjustment program agreed with the so-called Troika, between May 2011 and May 2014, with a financing of EUR 78 billion, accepting cyclical and structural adjustment commitments with more direct and visible implications in terms of rebalancing public and external accounts. Spain, despite the financing difficulties is able to keep out of these processes, receiving only aid to support the financial sector, accepting in accordance commitments of economic and financial adjustment, but keeping outside the direct tutelage of international institutions. Maybe for this reason, but surely also for reasons of good previous economic and public accounts performance, Spain does not undergo a process of correcting the public deficit as drastically as Portugal, maintaining a deficit of 10.3% in 2012, against 5.6% in Portugal, starting only from there, truly, the process of adjustment but more in tune with its own general economic recovery. In 2014, Spain verifies a deficit of 5.8% of GDP, compared with 4.5% in Portugal.

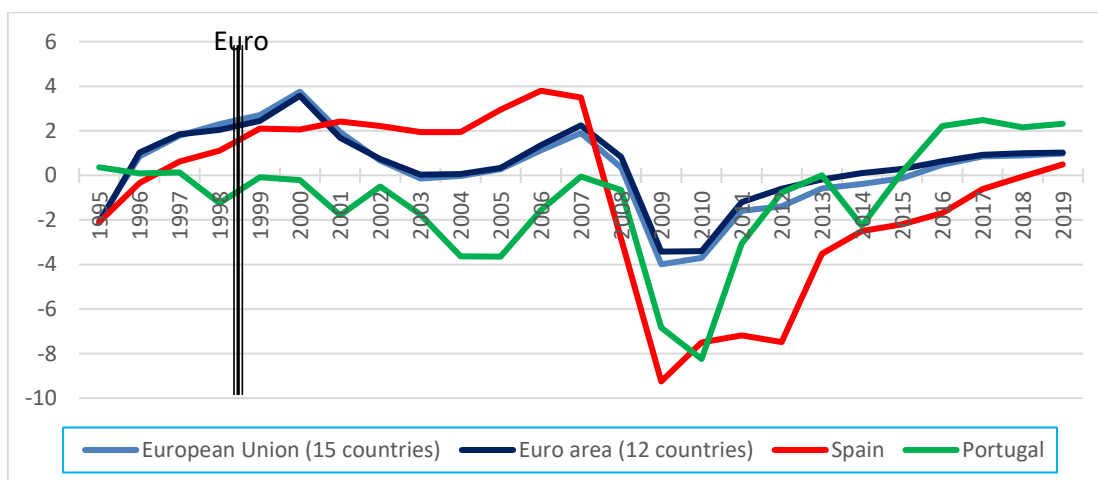
**Chart 9: Net lending (+) or net borrowing (-): general government (Percentage of GDP at current prices (excessive deficit procedure))**



Source: AMECO, Nov. 2017

These same trends are evident in the numbers of the primary deficit (Chart 10, below), with Portugal, unlike Spain, registering primary surpluses in 2013 and 2014, reflecting the more drastic fiscal adjustment in relation to that was verified in the neighbour country.

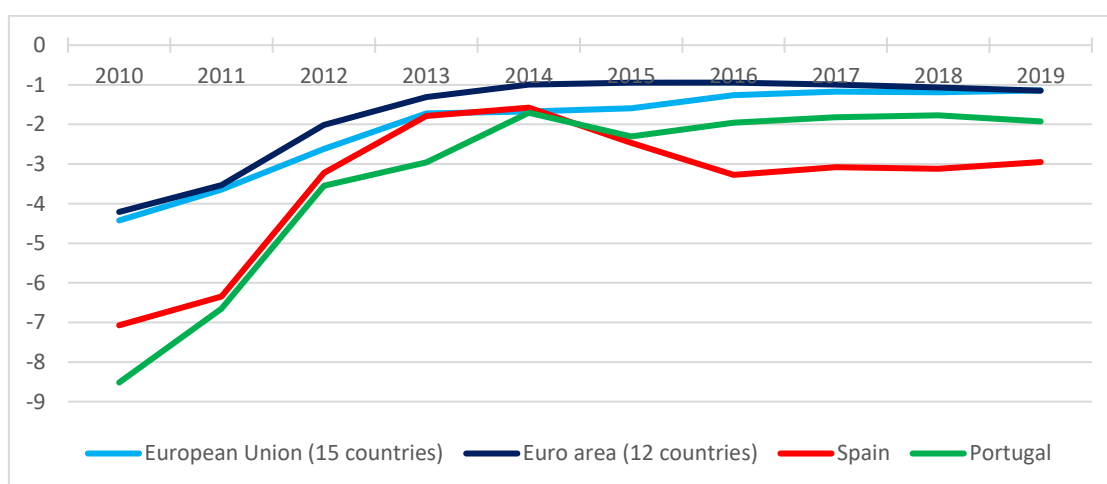
**Chart 10: Net lending (+) or net borrowing (-) excluding interest: general government. (Percentage of GDP at current prices (excessive deficit procedure))**



Source: AMECO, Nov. 2017

In what concerns structural deficits, Portugal and Spain, as we can see on Chart 11 below, don't match the commitments and it is possible to see some difficulties after 2014, when the economies began to recover. Of course, we are in presence of a controversial concept that needs more discussion, but in so far as it is a requirement of the Stability Pact it is possible to anticipate here a source of additional problems that can be used with political objectives.

**Chart 11: Structural balance of general government: - Adjustment based on potential GDP Excessive deficit procedure (Percentage of potential GDP at current prices)**



Source: AMECO, Nov. 2017

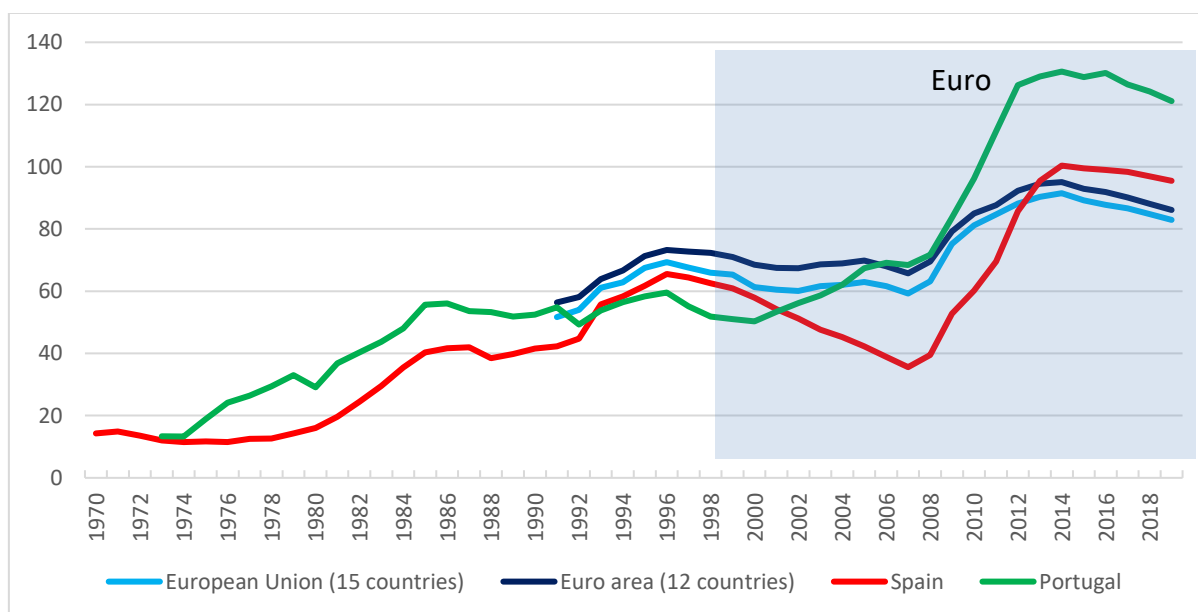
## 1.5. PUBLIC DEBTS

The better overall performance of public accounts in Spain, as a result of the better overall economic performance in the period of the euro existence, is also present in the public debt behaviour, which shows a sustained reduction path from the peak of 65.6%, reached in 1996, to a 35.5% ratio, in the year immediately prior to the 2007 crisis. In contrast, Portugal having maintained the average debt around the 50% ratio of GDP, i.e., inside the Maastricht criteria, throughout all the period of European Union membership until 2000, when this debt

reaches a minimum of 50.3% of GDP, it suffers a strong inversion of this reduction trajectory and the beginning of an upward trend that leads the debt to 68.4% of GDP in 2007, almost the double of that one registered in Spain (See Chart 12, below).

As has been the case in Europe in general, the crisis has triggered debt in both countries, reaching levels of 97.7% and 130.2% in Spain and Portugal, respectively, face a European average of 92% and 95% %, in the EU15 and EA12. What is important to emphasize in this case is once again the difference between the two countries structural dynamics, with Spain debt deteriorating as a direct consequence of the crisis, while Portugal verifies an accentuation of a trend that came from the past, seeing all the fragilities accumulated during the euro phase become more evident.

**Chart 12: General government consolidated gross debt (Percentage of GDP at current prices (excessive deficit procedure))**



Source: AMECO, Nov. 2017



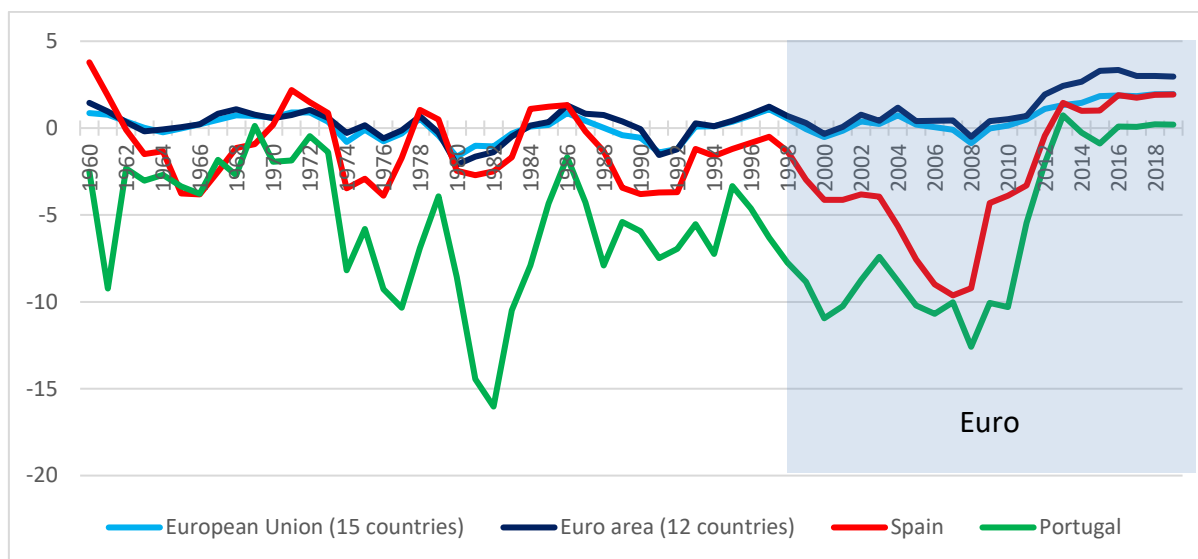
## 1.6. EXTERNAL BALANCES

In the case of both countries, external adjustment seems to have been the most successful objective since Spain and Portugal managed to move from high current account deficits, which reached peaks of 9.3% of GDP in 2007, in the first case, and 11.4% in 2008, in the second case, to surplus from 2013 onwards (Chart 13, below). To a large extent, the success of this adjustment lies in the decrease of economic activity that has taken place in both countries in the aftermath of the crisis and the austerity measures that have been adopted which caused a sharp fall in imports. But other factors have also played a role, both on the export side and on the import side, in particular the fall of the oil prices.

In any case, the adjustment in these countries is similar to the one that took place more generally in the euro area and which has resulted in a reduction of the imbalance that had been accumulated over the years, and particularly since the creation of the euro, between the current account of Germany and the current accounts of the generality of the euro zone countries.

In spite of the visible differences between current accounts developments in Spain and Portugal, with the latter country showing a chronic tendency for the production of large external deficits, there is some kind of a convergence between the two countries dynamics to increase external negative balances, particularly since the creation of the euro zone, with peaks during the international financial crisis. In both cases, this deterioration of the external accounts, when compared with the development of Germany's surpluses, reflects the failure of the euro system to work as an internal adjustment mechanism of the area.

**Chart 13: Balance on current transactions with the rest of the world (National accounts) (Percentage of gross domestic product at current prices)**

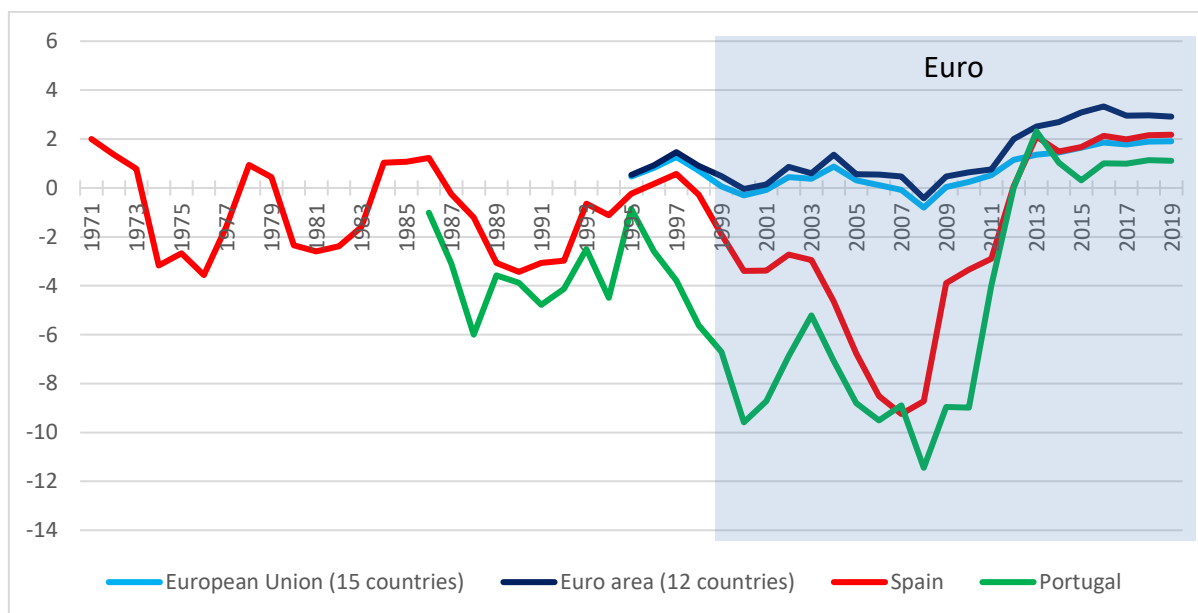


Source: AMECO, Nov. 2017

### 1.6.1. NET LENDING – NET BORROWING

Notwithstanding the need of a deeper analysis of the reasons that led to this apparent success of the ability to balance external accounts and the degree of their sustainability in the case of a stronger economic recovery, it is an evident fact that relieved external pressures by generating net lending capacity in both countries, starting in 2012 and following the European trend (Chart 14).

**Chart 14: Net lending (+) or net borrowing (-): total economy (Percentage of gross domestic product at current prices)**



Source: AMECO, Nov. 2017

## 1.7. ADDITIONAL REMARKS

From the brief comparison that has been made of the evolution and performances of the two Iberian economies, it is possible to draw some conclusions that, of course, need further study.

The *first* and perhaps the *most significant conclusion* is that both Spain and Portugal are following the general trend in Europe for the loss of economic dynamism that has been running since the crisis of the early 1970s but that has become more pronounced after the creation of the euro. In any case, the loss of dynamism seems lower in Spain than in Portugal. Spain seems to have reacted much better to the euro shock, with average growth rates above the European average during this period, while the Portuguese economy practically stagnates, entering a period of clear divergence from the European average.

The *second conclusion* has to do with the differentiated role that unemployment seems to play in the two economies as an adjustment variable. Unemployment seems to be much more sensitive to economic cycles in Spain, possibly in result of different priorities of economic policy and the different functioning of the labour market vis-à-vis Portugal. Here too one can see the great difference between Spain and Portugal in reaction to the euro creation. Spain shows a better capacity to adapt to the new conditions, with a reduction of unemployment, only interrupted as a consequence of the crisis, while Portugal shows a loss of general economic dynamism that provoked the rise of unemployment in counter-cycle of the rest of Europe, a trend that the crisis only strengthened.

The *third conclusion* recognizes the better overall investment performance, in the case of Spain, including public investment, which is most evident in the period as European Communities membership, including in the euro phase. In Portugal, on the contrary, after some initial post-addition euphoria there is a significant loss of dynamism in this component of the output, which accentuates in the euro phase, including at public investment level. A symptom of this difference in performances is the fact that in 2014, in the aftermath of the effects of the international crisis, Spain has returned to the investment levels, measured by the GFCF, registered in 1999-2000, while Portugal returned to levels similar to those verified in 1989.

The *fourth conclusion* concerns public accounts showing a much better overall performance of Spain, including obtaining budget surpluses from 1997 and throughout the euro phase until the crisis. Portugal, on the contrary, shows a chronic difficulty in ensuring fundamental balances at public accounts level, with very few exceptions, the last of which, precisely before the crisis, in 2007 and 2008. Portugal succeeded in bringing the excessive deficit procedure, opened in 2005, to an end, one year earlier than it had agreed with the European Commission. There is also a less "austere" attitude in Spain regarding fiscal policy, which is certainly due to the slack allowed by the excellent pre-crisis performance, but also to the fact

that it has managed to keep the country out of any direct intervention from the Troika, with the exception of the banking sector. In which concerns public debt, Spain verifies the general trend of post-crisis Europe, also in this case revealing a more relaxed situation than Portugal whose problems precede the crisis and are in line with its overall economic performance.

The *fifth conclusion* concerns external accounts. Once again it is evident the better overall performance of Spain but, curiously, both countries converge to a similar balance deterioration during the period of the euro. In Portugal and Spain, we see an increase of the current accounts imbalances. The adjustment verified in both countries, in the aftermath of the 2009 crisis, follows the general trend towards a rebalancing in Europe, with a reduction of Germany's surpluses in parallel with the reduction of the deficits of its euro partners. But above all this adjustment reflects the strong decline in domestic economic activity, and it is still too early for demonstrating its sustainability, particularly in the event of a significant resumption of the economic activity.

The *sixth remark* is more a comment than a conclusion. The estimates and projections for 2017 and for 2018 and 2019 point towards a certain strengthening of the ongoing economic recovery. But uncertainties are still present at the horizon and the risk of inversion of the present dynamics is high. That's the main reason why the central banks keep the fundamental references of the monetary policy followed in recent years, of low interest rates. Even in this recovery phase, Spain seems to perform better than Portugal, notwithstanding Portugal have been able to recover some convergence with Euro zone average. In any case it seems that structural problems that we talked above persist and need to be attacked, primarily at the Eurozone level.

*Finally*, we can conclude from the significant difference in economic performances of the two countries over the last three or four decades, both shaped by significant changes in the international economic system and by shocks of diverse nature that profoundly affected the domestic and international dynamics of the different economies. In this period, Spain has shown

a remarkable ability to adapt and take advantage of new situations, with particular emphasis in what concerns the functioning of the new European currency phase. On the contrary, Portugal has shown greater difficulties in adapting to the new demands of international competition, and these difficulties have been accentuated following the introduction of the single European currency, of which it was also a founding member like Spain. Certainly, the reasons behind the economic history of the two countries largely explain these differences, but one cannot exclude, on one hand, different domestic economic options, which have resulted in different uses of the opportunities offered by the accession to the European project and, on the other hand, different situations of vulnerability in the face of the progressive inefficiency of the institutions and internal adjustment mechanisms of the European Union, which were aggravated by the creation of the euro. Spain saw its economy strengthened. On the contrary, Portugal saw its vulnerabilities become more pronounced.

## 2. EFFECTIVENESS VERSUS EXHAUSTION OF THE MONETARY POLICY OF THE ECB: THE USE AND ABUSE OF THE SO-CALLED “UNCONVENTIONAL MEASURES”

According to the Treaty on the Functioning of the EU, the main objective of the European System of Central Banks (ESCB), which includes the ECB, is to maintain price stability. Without prejudice to this primary objective, the ESCB supports the economic policies of the Union, considering the fulfilling of the objectives of this Union as defined in Article 3 of the Treaty on European Union. Of note among these objectives is point 3 of the Article which sets out growth and economic principles, based on price stability. The goal of full employment is also mentioned

but at a secondary level and subordinated to the fulfilment of the main objective. The role of the ESCB in this context is to define and implement the monetary policy of the Union, through short-term interest rates management, thus influencing the development of economic conditions in order to ensure mid-term price stability in the euro area. Price stability is defined in terms of the annual increase in the Harmonised Index of Consumer Prices (HIPC), at a rate close but below 2% over the medium term. As monetary policy instruments, the ECB uses open market operations, designed to manage liquidity in the banking system and signal the stance of monetary policy, standing facilities, designed to provide or absorb liquidity in the overnight market, and reserve requirements, designed to maintain stabilization of interest rates in the money market and to create or enlarge a structural liquidity shortage. This is what is considered the conventional monetary policy tools.

Following the effects deepening of the international economic and financial crisis the ECB decided to improve the tool box of the monetary policy using more and more the so-called unconventional measures, to the exact extent of the loss of effectiveness of the so-called conventional measures.

We aim to discuss now, the issue of the effectiveness versus the exhaustion of the monetary policy of the ECB, trying to understand the relationship between the development of the crisis, the use of increasing unconventional measures and the limits of the monetary policy as a main tool to deal with the Eurozone asymmetric effects of the international crisis.

The discussion will develop in four steps in addition to this introduction. First, we will consider the increasing use of unconventional monetary policy by the ECB as an answer to deepening of the crisis and the inability of the European authorities and national governments to deal with its main consequences. Second, we discuss the so-called “liquidity trap” hypothesis in the context where the unconventional monetary policy brought the interest rates to the zero

lower bound at which they still find themselves to this day. Finally, we recall the endogeneity *versus* exogeneity hypotheses of money supply.

## 2.1. THE FOUR PHASES OF DEVELOPMENT OF THE UNCONVENTIONAL MONETARY POLICY

Following the third quarter of 2008, after the outbreak of the international economic and financial crisis, the ECB decided to introduce a set of additional monetary policy measures, completely unprecedented regarding their nature, scope and magnitude, which were designated as "unconventional measures". As early as August 2007, when the signs of the global crisis were already visible, the ECB decided to intervene, like its major partners, through the use of strong liquidity injections in an attempt to limit the effects on the functioning of the banking and financing system. Since then, the ECB has continued using these and other unconventional measures, given that it was its normal or conventional practice until then, widening the range of instruments that it started to use against the context in which the international economic and financial crisis developed and the way it manifested in the Eurozone. A new era of ECB intervention was opened, with all its titles unprecedented and which, through evolving in stages, has extended to the present.

### A. *First phase: direct liquidity injection in the market (September 2008 - June 2014)*

With the introduction of this new type of measures, the ECB widened the range of intervention possibilities in managing the crisis, expanding the toolbox available to deal with the operational needs of the monetary and financial system. However, simultaneously, it pushed



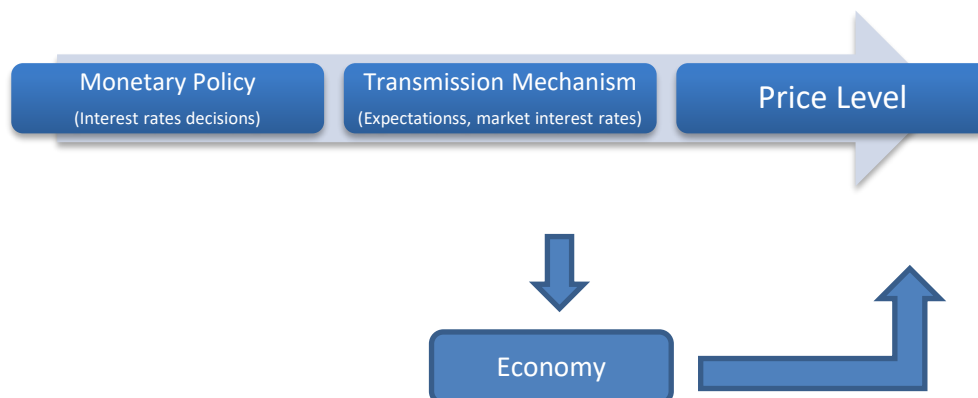
the limits of its own field of intervention, statutorily established in the treaties of the Union, in particular concerning the financing of states and public institutions, and approaching the traditional intervention of central banks as lenders of last resort.

This evolution of the ECB regarding the conduct of monetary policy in the context of the European crisis has led to a number of serious divergences between European leaders, which have deepened since then, with the Bundesbank and the German government being their main opponents. A situation that has led the main heads of the ECB to refine the theoretical argument and the practical justification in which to frame the progressive adoption of less and less "conventional" measures, especially that of the Vice-President, Vítor Constâncio, who has had the most active role in this respect (see, in particular, Constâncio, 2011, 2013, 2015a, 2015b and 2016).

The main argument for unconventional monetary policy is the idea that the conventional monetary policy transmission mechanism ceased to function properly, as a result of the dysfunctions produced in the financial markets, and proved itself unable to contain the deflationary pressures that followed the crisis and, consequently, failed to properly secure the objective of price stability - an inflation rate below but close to 2%.

The monetary policy transmission mechanism is the process through which monetary policy decisions are transmitted to the economy and, ultimately, to the prices level, the main target of the ECB's intervention (see ECB website, monetary policy). The scheme of this process can be schematically summarized by the diagram below.

**Fig. 1: The Monetary Policy Transmission Mechanism ("Normal" functioning)**

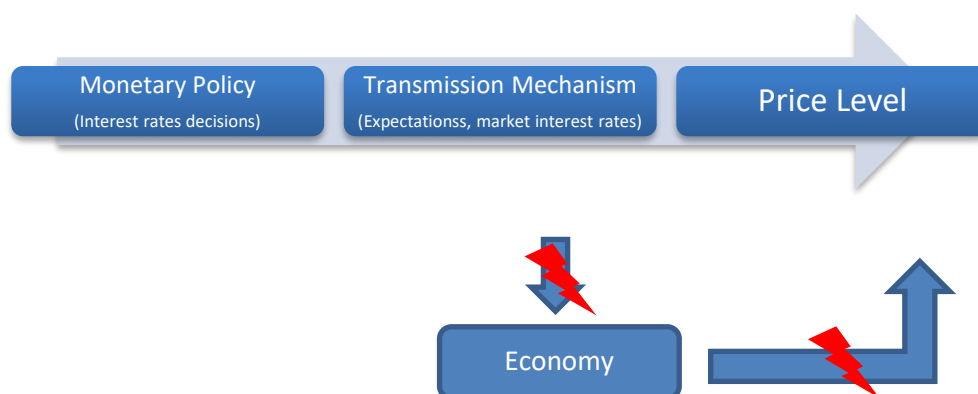


This process can be disturbed by several factors that are not controllable by monetary policy, namely variation in risk premiums, changes in bank capital that affect their credit conditions, changes in the economic environment and in the global economy, changes in fiscal policy or changes in commodity prices. These are called shocks outside the control of the central bank.

At the same time, even in normal conditions, the transmission mechanism is characterized by operating dynamics that are somewhat lengthy, variable and uncertain, particularly in contexts where shocks outside central bank control become dominant. This has been the case with the economic and financial crisis triggered on 2008, making monetary policy uncertain in its effects or, in extreme cases, completely ineffective.

In this extreme situation, there has been a malfunction of the mechanism transmitting central bank decisions to the economy that has distorted or even prevented the arrival of the effects, at least in the desired way, to the ultimate goal of the ECB, which is the level of prices. This malfunction justified the adoption of exceptional measures, designated "unconventional", creating a sort of "bypass" between monetary policy and the level of prices, avoiding the constraints of normal financing channels (Fig. 3 and Fig. 4, below).

**Fig. 2: The Monetary Policy Transmission Mechanism (Malfunctioning)**



According to the official justification of the ECB, the basis of the adoption of unconventional monetary policy was the malfunctioning of some segments of the financial markets that have prevented normal financing of the economy, thus disturbing the operating of the transmission mechanism (Fig. 3). Direct supply of liquidity to the market by the ECB seeks to prevent the collapse of important financial institutions, with the central bank assuming the role of lender of last resort in a liquidity crisis context.

A second justification for the introduction of unconventional monetary policy refers to the nature and scope of the measures. In addition, this domain introduces the so-called "separation principle" (Constâncio, 2011).

According to this principle, there is a clear separation between the purposes of conventional and unconventional measures. Unconventional measures are complementary to the former in having clearly defined and temporally limited objectives. They are intended to ensure that disruptions in financial markets do not prevent the conventional policy from doing its job by influencing prices through interest rates. In addition, they should be used as long as

the malfunctioning of the monetary policy transmission mechanism is evident and withdrawn as soon as this feature is recovered.

In this sense, and also according to the heads of the ECB, non-standard measures are distinct from the "quantitative easing" that is used by the Fed or the BoE, because they are not intended as a substitute for conventional interest rate policy in the context of "zero lower bound" or as a way to manage the "trade-off" between inflation volatility in the short run and price stability in the long run. Rather, unconventional measures are designed to ensure that the conventional measures are effective in all timeframes.

They work thus as a support mechanism to the conventional policy in a period of exception when disruptions in the normal financing channels of the financial system and of the economy manifest. They are no longer necessary when the situation normalizes and conventional monetary policy regains its effectiveness, and must therefore be removed. This is what automatically occurs in those situations, where financing operations have a defined time horizon and are not an object of explicit renewal. This was the case with the first measures adopted after the 2008 crisis that materialized in a huge direct liquidity injection in the market

### ***B. Second phase: approaching the role of "lender of last resort" (June 2014 – March 2016)***

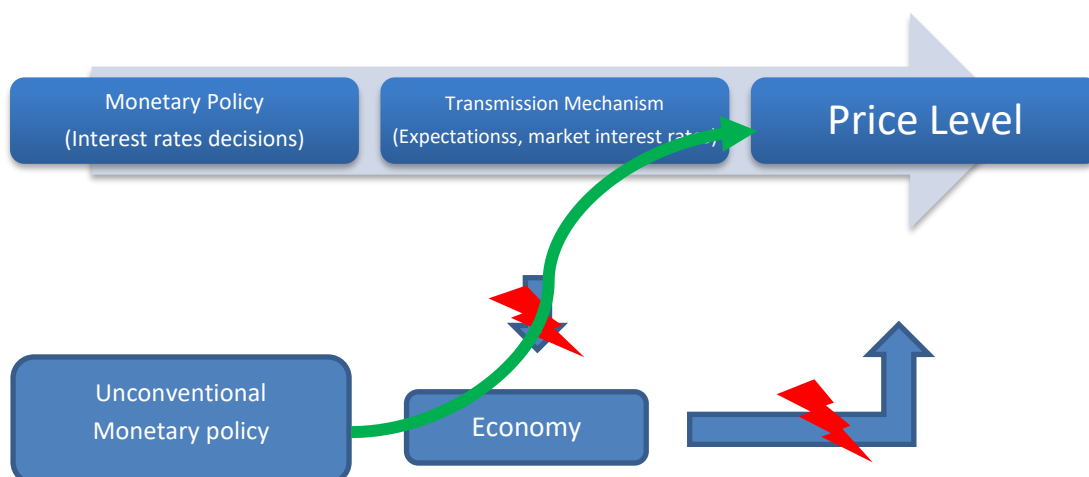
Despite the statement regarding the exceptional and temporary character of unconventional measures, the reality is that they came to stay and eventually become as "normal" as conventional measures, being adopted regularly in a form expected by economic agents and with increasing diversity. As a result of the persistent disturbance of the monetary policy transmission mechanism, of accentuation of deflationary trends and of the evolution of the actual economic and financial crisis, successive new "unconventional" measures were used,

namely, liquidity provided at fixed rates, full liquidity allotment, extension of maturities for loans granted by the ECB, including those granted for very long terms, widened eligibility conditions for collateral, direct purchases of government bonds and mortgage bonds, decreased requirements for minimum reserves, in a continuous process growing in scale, the creativity of which tending to accelerate.

In June and September 2014 more unconventional measures were introduced, considered of a new class: two programs of assets purchased from the private sector – an Asset Backed Securities Purchase Program (ABSPP) and a third Covered Bond Purchase Program (CBPP3), adopted in order to allow selective intervention in the markets with decisive influence on the financing of the non-financial sector; and a new series of Targeted Long-term Refinancing Operations (TLTROs), up to 4 years, to improve bank lending to the non-financial private sector in the euro area. According to officials of the ECB, the measures marked a new phase in the development of unconventional monetary policy. A stage where the ECB clearly stated the willingness to actively expand the size of its balance sheet up to the levels needed to ease the monetary policy stance, in a situation where interest rates reached their lowest level.

These new measures represented a qualitative leap over previous measures in that they no longer intended only to overcome the dysfunctions of the transmission mechanism. They wanted to directly influence the economy through specific channels overtaking this transmission mechanism in its role. We reached a stage where the ECB no longer relies on the ability of the banking system to use well the liquidity facilities that are provided, by injecting itself more money into the economy through lending operations, creating direct channels of monetary transmission, as shown in Fig. 4, below.

Fig. 3: The “bypass” of unconventional monetary policy



At the same time, the ECB aimed to create better conditions for the banking system itself to be able to make a correction of their balance sheets without this translating into a narrowing of credit for the economy.

It meant, in fact, a new attitude of the ECB involving a closer approach more of a "quantitative easing" stance, followed by the Fed and other central banks, in line with the role of "lender of last resort". A formally rejected stance, or at least not assumed up to here.

At the same time, these new measures also meant the ECB's commitment to the maintenance of low interest rates, in an extended time horizon, even beyond the achievement of economic recovery. A situation of inflation rate "overshooting" is even accepted, in the context of economic growth that is intended to encourage the use of these and other measures of an unconventional character.

### C. Third phase: the liquidity trap (March 2016 - ....)

A third phase of unconventional monetary policy was opened following the decisions of the Governing Council meeting of March 10, 2016.

The "zero lower bound" is fully reached with the setting of the interest rate on the main refinancing operations at 0%. However, the most significant fact is the acceptance of the possibility of financing the economy at rates as low as the rate applicable to the permanent facility deposit existing at the operation start date – that is, at negative rates. This possibility is foreseen under the new target long-term refinancing operations (TLTRO II) in the case of banks exceeding a reference value of net credit provided to the economy.

With this decision, a new stage of intervention is opened. A real Pandora's Box from which no one truly knows what can result, despite all the declarations that monetary policy will continue to be able to use the interest rate instrument. The next step, with it still being necessary to reduce interest rates, can only be the setting of the main refinancing rate in negative territory. Which can only be considered as a denial of monetary policy theory, not to mention its actual practice.

The important question in this situation is this: will the unconventional monetary policy work? Despite all the positive reassurances on this issue, the reality is that the use of increasingly radical unconventional measures may only show otherwise. That is, unconventional monetary is entering a progressive exhaustion process in its ability to influence the economy in the desired direction, as a drug addict who requires increasingly stronger doses to address the symptoms of a disease, as the body will be used to the substance and the disease does not stop spreading.

This is an image that can be applied to the so-called liquidity trap, a situation where, according to many opinions, the global economy, and European economy in particular, find themselves in.

## 2.2. THE LIQUIDITY TRAP: SOME CONSIDERATIONS USING THE IS/LM MODEL

The analysis of the liquidity trap can be used as a reference for understanding the ongoing economic situation in Europe and also, with the necessary adaptations, the current situation of the global economy (see, among others, Krugman, 2012 and Temin & Vines, 2014).

We are faced with significantly lower investment levels compared to pre-crisis levels. Furthermore, at the same time, interest rates have reached negative levels, if we refer to the banking system's relations with the ECB, with obvious effects over the non-financial sector.

The traditional IS/LM model, despite the simplifying assumptions that underpin it, can be a useful analytical framework for understanding what is happening to monetary policy, both in its conventional and unconventional components.

As it is known, the IS curve (Investment/Saving) is constructed from three relationships: the investment demand function; changes on aggregate demand as a result of changes on investment decisions when the interest rate varies; and the relationship between different levels of interest rate and output and the equality between savings and investment. On the other hand, the derivation of the curve satisfies the following propositions: an increase in the interest rate causes a reduction in investment demand, which in turn is reflected in an output reduction.

The IS curve represents, therefore, the combinations of interest rate and output levels that ensure the equilibrium condition in the market of goods and services. That is, total demand  $D$ , given the income level  $Y$  and the cost of credit  $i$ , equals the total supply  $Y$ , ( $D(Y, i) = Y$ ), always bearing in mind the equality between investment and saving. Its slope is, therefore, negative, in the space of the interest rate and output dynamics.

In turn, the LM curve (Liquidity Preference, Money Supply) is derived from the following relationships: the relationship between output and money demand; the relationship between money demand and interest rate; and the relation between the money market equilibrium

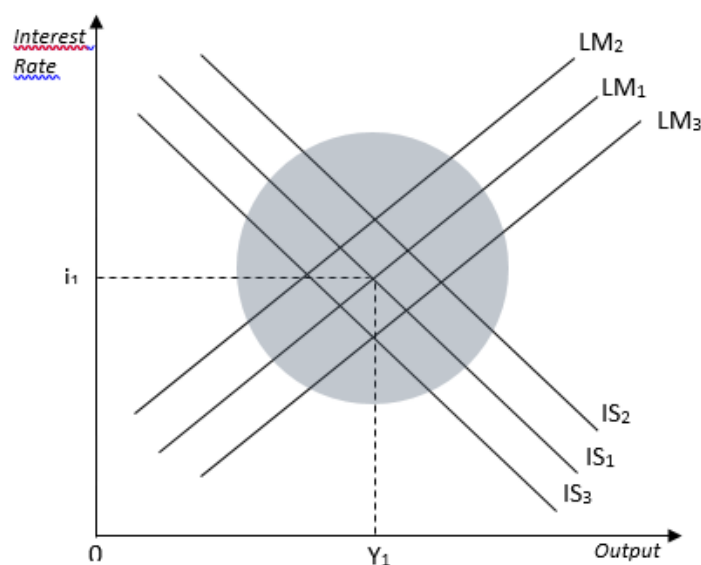


(money demand and money supply balance) and the different levels of the real interest rate. The derivation of the LM curve conforms to the following propositions: an increase in output generates an increase in money demand which, in turn, generates an increase in the interest rate.

The LM curve represents, then, the different combinations of interest rate and level of output that ensure equilibrium in the money market. That is, the balance between money demand and money supply,  $M^d(Y, i) = M/P$ , given the nominal supply of money  $M$  and the price level  $P$ . The slope of the LM curve is therefore positive in the space of the interest rate and output dynamics.

In "normal" conditions, simultaneous equilibrium in the market of goods and services and the money market produces a positive interest rate ( $i_1$ ) and a certain level of real output ( $Y_1$ ). The equilibrium point is located graphically in the 1st quadrant, with movements to the left and to the right being conceivable for both curves, ensuring the conditions for monetary and fiscal policies effectiveness and different combinations of simultaneous equilibrium in both markets, represented by the different intersections of IS/LM curves within the shaded circle of Figure 4, below:

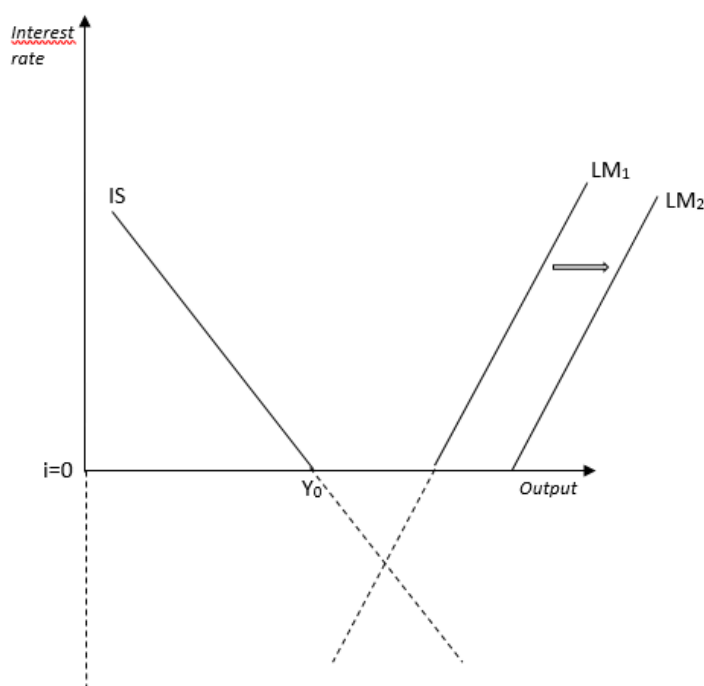
Fig. 4: “Normal” simultaneous equilibria in both the markets for goods and services (IS) and Money (LM)



Consider, however, the case where the intersection of the IS/LM curves does not match in the 1st quadrant, but in the 4th quadrant. That is, a situation where theoretically the intersection occurs in an area of negative levels of interest rates for different output levels.

This can occur in a context where the IS curve has a strong shift to the left as a result of contractionary fiscal policies as happened in Europe following the so-called sovereign debt crisis in Europe, where concerns with containment of deficits and public debt led to a widespread decline in public spending.

Fig. 5: “Abnormal” simultaneous equilibrium



In such a situation, represented in Fig. 5 above, equilibrium output is given by  $Y_0$  and the interest rate is equal to 0. An increase in the money supply moves the LM curve to the right, ( $LM_1 \rightarrow LM_2$ ) but has no effect on the interest rate that, at least theoretically, cannot go down more. This means that investment can no longer be stimulated in this way. Monetary policy becomes ineffective.

By contrast, fiscal policy, through public spending or by tax reduction, can shift the IS curve to the right stimulating, in this way, the output level. Fiscal policy acquires an additional effectiveness to the extent that, given the loss of effectiveness of monetary policy, it becomes the only way to increase output.

It can also be seen, regarding the effectiveness of monetary and fiscal policy, that the LM curve can be modified only through the action of two factors: changes in the money supply and changes in autonomous money demand. The IS curve, in turn, is influenced by five factors:

autonomous consumption spending, investment spending, government consumption, net exports and the level of taxes. This means that in a situation of monetary policy blocking, the IS curve can be shifted to the right, through the influence that fiscal policy directly or indirectly has on the economy through the operation of these channels.

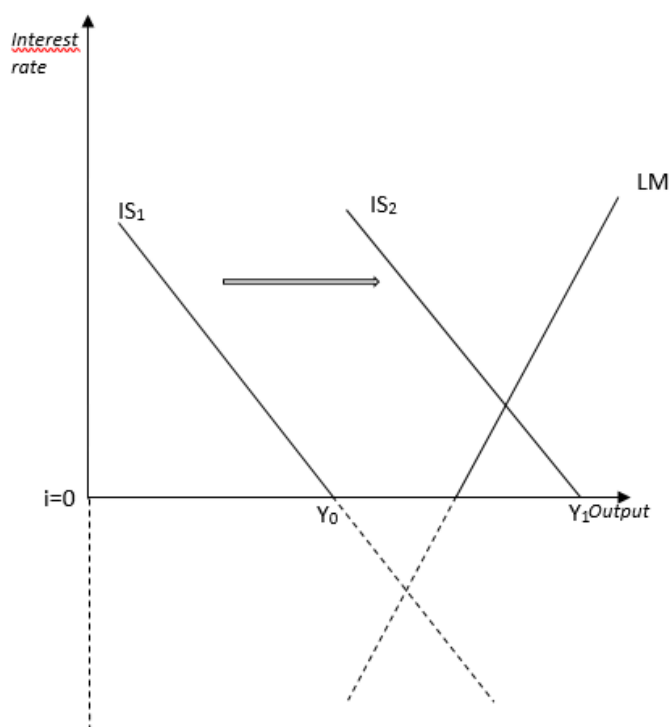
The analysis using the IS/LM model can also explain the relationship between the two macroeconomic policies. Fiscal policy works through the economic relationship represented in the IS curve. In turn, monetary policy works through the relationship translated by the LM curve. However, as can be seen in Fig. 4, the LM curve only affects the economy when it intersects the IS curve with a positive interest rate. In a situation where the intersection between the two curves, theoretically, only operates in a negative interest rate zone, monetary policy become completely ineffective and the economy falls in the liquid trap.

Moreover, we come to the crux of the matter. Can monetary policy back to play a role in this situation?

No longer working through its normal channels, monetary policy may act indirectly facilitating the operation of fiscal policy to move the IS curve to the right ( $IS_1 \rightarrow IS_2$ ) (Fig. 6). This can be done through the accommodation of any public deficits, that result from the use of expansionary fiscal policy, through direct funding from the central bank.

Which, to a certain, it is already being carried out by the ECB and other central banks.

Fig. 6: The role of fiscal policy



### 2.3. EXOGENEITY VERSUS ENDOGENEITY OF MONEY SUPPLY

Another important issue for understanding the current situation relates to the discussion of the process of monetary creation by the economic system.

In the framework of the IS/LM model, the construction of the LM curve is associated with the hypothesis of exogenous money supply. That is, it is assumed that money supply is controlled by the central bank, being independent from the demand that results from the activity of economic agent.

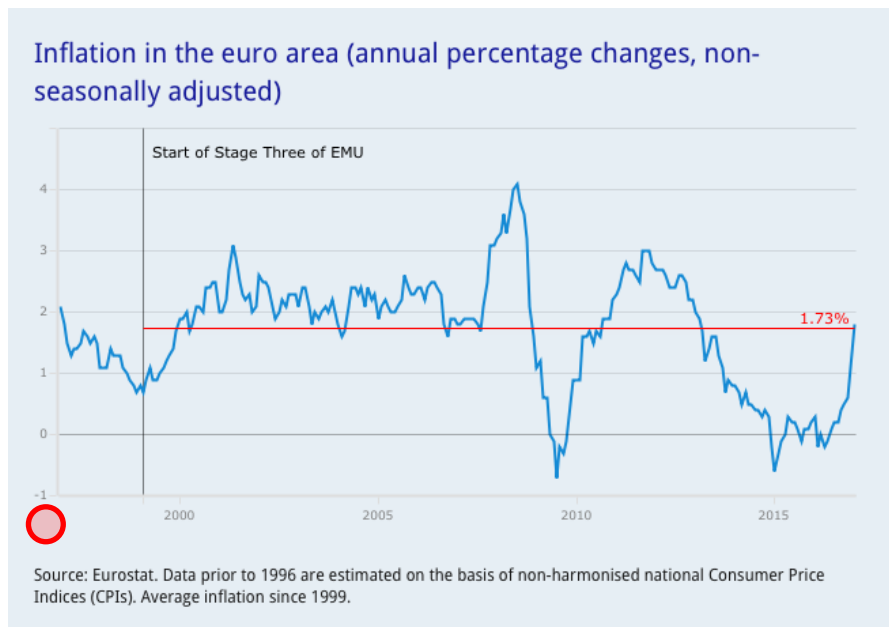
Underlying this idea is the theory of the money multiplier, which introduces the separation between the Monetary Base - composed of currency in circulation and the required reserves held by the Central Bank - and the money supply itself, which is the money, created by

the banks in their relations with economic agents. The money multiplier mechanism works between these, which is supposed to convey the changes in the monetary base, the central bank's responsibility, to the money supply, as represented in the movements in the LM curve.

This exogeneity of money supply, as described here, has always been controversial in economic theory. Moreover, the current situation involving the intervention of the ECB, in particular with its evident inability to influence the economy, with the desired strength, through its conventional and unconventional liquidity injections, has raised more doubts about this exogeneity hypothesis, giving strength to the opposite hypothesis of money supply endogeneity. That is, unlike the exogenous money supply hypothesis, banks first provide liquidity to the economy through the credit they grant and only then do they turn to the central bank for refinancing to establish the reserves needed to cover the deposits that they manage through lending. Therefore, the route is not from the central bank to the economy, but from the economy to the central bank.

According to the endogeneity hypothesis, the central bank can only accommodate the money created by commercial banks in their relations with economic agents, and had no ability to determine any quantitative goals for money supply. This is, incidentally, one of the arguments most frequently used by the heads of the ECB to justify the adoption of unconventional measures, as a means to undo the tensions in the banking system funding. Instead of causing an uncontrolled expansion of the money supply (M3) generating inflation, the expansion of the ECB balance sheet has served above all to prevent its further decline (Graph. 1 and Fig. 7). According to the proponents of unconventional monetary policy, in the absence of unconventional measures the growth of money supply would have fallen much more. Probably, it would have reached the levels seen in the crisis of the 1930s, with all the known consequences for levels of economic activity and unemployment.

Chart 15: Inflation in the euro area



The endogeneity hypothesis of money supply is very important and allows us to understand several difficulties that monetary policy is facing today.

Recalling the relation of the monetary base with lending by commercial banks, we can describe the following sequence:

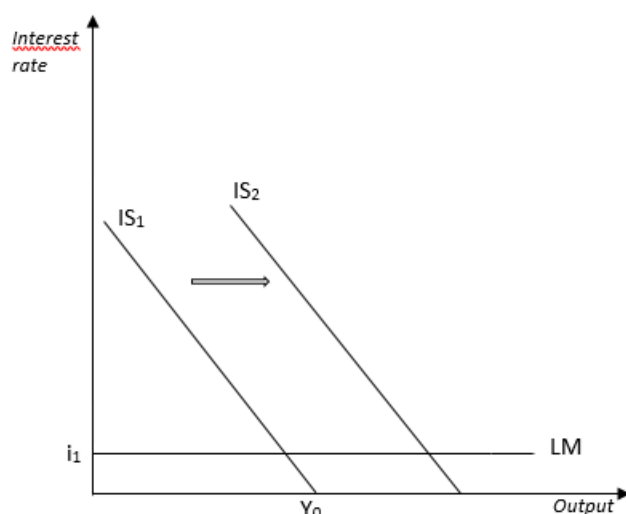
Chart 16: Money creation sequence



Obviously, the demand for credit depends on the state of the economy and the level of confidence in the future by economic agents.

The fact that money supply can be considered endogenously determined means that the LM curve is horizontal for a given interest rate, the financing being elastic at this interest rate. The IS curve to the right ( $IS_1 \rightarrow IS_2$ ) ceases to have any influence in determining the interest rate. This situation is shown in Fig. 8, below.

Chart 17: Endogeneity of Money supply



As is easily understandable, when the economy reaches a situation of this nature, it means that monetary policy ceases to have any role in determining the level of economic activity. If the central bank expands the reserves in a voluntary manner, trying to get economic results by expanding the money supply, it can only generate excess reserves by commercial banks pushing interest rates down. No increase in money supply is effectively produced. By contrast, fiscal policy obtains full importance. Somehow, this is what has happened in the Eurozone and other



economic zones with the central banks expanding the reserves of the banking system beyond all limits through "quantitative easing", without having been able, at least until now, to expand the demand for funds by the non-financial sector as necessary to significantly influence the level of aggregate demand, as would be their intention.

### 3. FINAL REMARKS

There is little left over to use regarding the "tool box" available by the ECB. And as regards what is left, only with a large degree of "elasticity" of interpretation will it fit within what the ECB is supposed to be able to do under the European Treaty and its own statutes.

An additional problem has to do with coordination of monetary policy with fiscal policy in the euro area. The former, increasingly oriented in an expansionary direction and the latter continually tied to a contractionary view, particularly with regard to the countries most affected by the crisis effects, more indebted and, therefore, more dramatically dependent on a stimulus demand to be able to get out of economic anaemia in which they find themselves.

There is, therefore, somewhat of a manifestation of an economic schizophrenia, which can be verified at the level of institutions with more responsibility in the conduct of international economic policies, particularly with regard to the ECB and the IMF.

In all its last most important interventions, Mario Draghi has urged governments to use fiscal policies that promote growth. We recall, in particular, the press conference, to present the decisions of ECB Governing Council Meeting of 10 March 2016, that marked the beginning of the third phase of the so-called unconventional monetary policy, where he stated that "Fiscal policies should support economic recovery ...", at the same time as affirming that "... while

remaining in compliance with the fiscal rules of the European Union", to add at the end "at the same time, all countries should strive for a more growth-friendly composition of fiscal policies", ( Draghi, 2016a).

Discounting the aforementioned schizophrenia, evident in the contradictory statements between the call to use fiscal policy and the appeal for "compliance" with the rules of the Stability and Growth Pact, the ECB president's concern with the continued refusal of the use of fiscal policy in the euro area is clear, particularly by countries with economic surplus, with Germany at the head. But also, jointly by the EU and the euro area member states, as an instrument to streamline economic activity via aggregate demand stimulus. A situation that, if it continues, could accelerate even further the exhaustion process of monetary policy, both in its conventional and unconventional versions.

It is this awareness that justifies the growing concern of the ECB to build a theoretical and empirical justification for the need to promote public investment. There is a clear reorientation of economic studies in this direction, which also meet the need to provide institutional support to the Juncker Plan, "A new start for Europe", presented to the European Parliament on 15 July 2014, following his election as the new President of the European Commission.

In this regard, the study published in the ECB Economic Bulletin, Issue 2/2016, "Public Investment in Europe" (ECB, 2016) should be mentioned, which recognizes the sharp drop in public investment in Europe, since the crisis, and states that "An Increase in public investment has positive demand effects and can contribute to the economy's potential output by increasing the stock of public capital" (ECB, 2016: p. 13). Considering the monetary policy followed by the ECB, the study recognizes that "... an increase in public investment will have the strongest short-term demand effects, including in terms of spill overs to other countries, with an anticipated accommodative monetary policy", and that " this finding strengthens the case for increasing

public investment in the current low-inflation environment". Still following the study, it concludes that "... a debt or revenue financed increase in productive public investment implies significantly larger short-term output gains compared with an increase in investment financed by cutting other public expenditure". Conclusions which, however, do not seem to have been suitably taken into account regarding the general direction of economic policies pursued by the EU and the euro area, leading to the inconsistency and schizophrenia already mentioned.

Also at the level of the IMF, there is a recognition of the importance of relaunching public investment on a comprehensive and coordinated scale, although this had not been exempt from criticism of incoherence and schizophrenia as manifested with particular sharpness in assistance programs in which the IMF participated as a member of the Troikas. Even before the ECB, the IMF, through the statements of its leading figure, Christine Lagarde, and also through the statements of its most senior economists, such as Oliver Blanchard, drew attention to the effects of the austerity policies implemented across the board and without taking into account the specific situations of regions and countries, recognizing the negative impact on growth and employment and, more than that, for the persistence at the world economy level, of a general trend towards economic stagnation. In this regard, it is important to mention the World Economic Outlook, April 2016 (IMF, 2016), significantly entitled "Too slow for too long", where growth-oriented policies receive clear support from the analysis made of the general economic conditions and the factors that led to them. And, finally, the work published on the IMF Journal, Finance & Development, by Ostry et al. (2016), where the authors clearly conclude, after a cross-countries analysis of the policies adopted in response to the crisis, that instead of delivering growth, some neo-liberal policies have increased inequality, in turn jeopardizing durable expansion.

This re-orientation of IMF concerns began to become evident in the WEO of October 2014 where, in the 3rd chapter it significantly raises the issue, "Is it time for an infrastructure

push? The macroeconomic effects of public investment.", to give the answer "This chapter finds that increased public infrastructure investment raises output in both the short and long term, particularly during periods of economic slack and when investment effectiveness is high. This suggests that in countries with infrastructure needs, the time is right for an infrastructure push: borrowing costs are low and demand is weak in advanced economies, and there are infrastructure bottlenecks in many emerg-ing market and developing economies. Debt-financed projects could have large output effects without increas-ing the debt-to-GDP ratio, if clearly identified infra-structure needs are met through efficient investment."

The OECD seems going in a similar direction when emphasising, in its Interim Economic Outlook, of February 16, 2016, following the recognition of the weak economic growth, that "A strong collective policy response is urgent. Global macroeconomic policy, comprising monetary, fiscal and structural actions, must become more supportive of demand and resource allocation. Experience to date suggests that reliance on monetary policy alone has been insufficient to deliver satisfactory growth, so that greater use of fiscal and structural levers is required".

Seen retrospectively, the monetary policy response of the ECB to the development of the crisis seems to have been more a reaction to events than an effective response to the economic problems. Although all the improvements, compared to the times of the former President Jean-Claude Trichet, the reality is that the current leaders failed to act in advance, intervening mainly in extreme situations to prevent disaster.

However, if this intervention has proved crucial, it has also contributed to the accumulation of tensions that cyclically threaten to explode pushing the economy to limit situations. It is precisely these tensions accumulation dynamics that has driven ECB intervention toward increasingly unconventional measures.

However, these unconventional measures have not found, until now, the necessary support in terms of fiscal and budgetary policies, which continue to manifest a resistance to

meet the real needs of the economy. Instead, as these policies continue to focus on issues of fiscal balance and public debt, they have acted in the opposite way, demanding more and more from monetary policy that, by its very nature, is limited in its ability to deal with all the problems that affect the economy.

It is, precisely, this contradiction between the stances of fiscal and monetary policies that has boosted the effect of exhaustion of monetary policy, discussed in this essay.

When called upon to use less and less conventional instruments, monetary policy that is supposed to be followed by the ECB reveals its weak institutional architecture and its inconsistent theoretical framework. While not being completely negative, in that it has enabled pragmatism in response to the crisis, the use of increasingly unconventional measures pushed monetary policy towards a boundary zone where it has begun to deny itself, when it accepted within its toolbox the use of negative interest rates.

To conclude, we will say that what is at stake in how Europe and the Eurozone in particular have reacted to the crisis, is the euro system itself.

Designed to provide a joint response of the monetary zone to the problems of international adjustment it has not internally found a suitable complement to the correction of asymmetries between countries that, as opposed to the starting assumptions, have ended up accentuating these, denying the verification of the optimistic endogeneity hypothesis for the monetary area.

Within this perspective, ideas that point to a solution of a "more Europe" kind to address the problems do not seem realistic. This view runs the risk of accentuating the removal of decisions from the concrete realities of countries, strengthening theoretical approaches to the detriment of reality analyses and the power of distant bureaucracies to the detriment of agents subject to the direct scrutiny of citizens. This, ultimately, can lead to the denial of the very

concept of economic and monetary integration applied to the reality of Europe and the Eurozone.

A general review of the euro system is therefore, justified in order to adjust it to the current dynamics of the different European economies and to their joint participation in the global economy. Furthermore, the immediate recovery of all rights of citizenship for fiscal policy is also justified in order to curb the monetary policy exhaustion process and enable it to bring back the economy to a sustained area reversing the stagnation tendencies that affect it.

A final word to the recovery of the European economy that seems finally to be running more firmly since the middle of 2016. There will be little doubt about the positive role that the ECB intervention has played in creating the conditions to give greater sustainability to the reversal of the long period of stagnation. But we discussed also the limits of the monetary policy, even in its broader unconventional use as an instrument to deal with all the needs of a sustainable recovery. In any case, there is no certainty that macroeconomic policy, beyond monetary policy, has finally found the appropriate way to deal with the weaknesses evidenced by the euro system throughout the crisis process.

In this sense, we cannot fail to have a mixed feeling in relation to the words of Draghi in the Forum of Central Banking that took place last June 2017 in Portugal: “For many years after the financial crisis, economic performance was lacklustre across advanced economies. Now, the global recovery is firming and broadening. A key issue facing policymakers is ensuring that this nascent growth becomes sustainable.

Dynamic investment that drives stronger productivity growth is crucial for that – and in turn for the eventual normalisation of monetary policy.

Investment and productivity growth together can unleash a virtuous circle, so that strong growth becomes durable and self-sustaining and, ultimately, is no longer dependent on a sizeable monetary policy stimulus”, (Draghi, 2017).

We hope that the positive signs of the economy will not become the justification for postponing once again the reform of the euro system which the events of the last decade have placed on the high priorities agenda.

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